DOCUMENT RESUME

ED 272 415 SO 017 327

AUTHOR Rud, Anthony G., Jr.
TITLE Critical Thinking and Pre-College Philosophy.
PUB DATE 86
NOTE 20p.; Paper presented at the American Educational Research Association Annual Meeting (67th, San Francisco, CA, April 16-20, 1986).
PUB TYPE Viewpoints (120) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Critical Thinking; *Logic; *Logical Thinking; *Philosophy; Secondary Education
IDENTIFIERS *Ennis (Robert); Lipman (Matthew); *McPeck (John); Siegel (Harvey)

ABSTRACT

The paper examines a debate recently at the fore of the philosophical and educational literature on "critical thinking," namely, the claim that critical thinking consists of a set of discrete skills which can be taught separately versus the claim that critical thinking is "field dependent" and is thus part of learning a discipline. The works of Robert Ennis, John McPeck, Harvey Siegel, and Matthew Lipman are considered to support the conclusion that though critical thinking is a ncessary condition of philosophical thinking, it is not a sufficient condition. Philosophical thinking as taught in the pre-college curriculum is characterized as the interplay of dialogue and reflection that has grown out of an initial sense of wonder. (Author/BZ)

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CRITICAL THINKING AND PRE-COLLEGE PHILOSOPHY

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PRESENTED AT THE 1986 AERA MEETING, SAN FRANCISCO

In this paper, I examine a debate recently at the fore of the philosophical and educational literature on "critical thinking", namely, the claim that critical thinking consists of a set of discrete skills which can be taught separately versus the claim that critical thinking is "field dependent" and is thus part of learning a discipline. I consider the work of Robert Ennis, John McPeck, Harvey Siegel, and Matthew Lipman to support my conclusion that though critical thinking is a necessary condition of philosophical thinking, it is not a sufficient condition. I contend that philosophical thinking as taught in the pre-college curriculum is characterized as the interplay of dialogue and reflection that has grown out of an initial sense of wonder.

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Everyone talks about critical thinking and, fortunately, everyone seems to be doing something about it. The trouble is, we are all apparently doing something different. Recent studies have pointed to the demise of the teaching of reasoning skills, the best known perhaps being Mortimer Adler's Paideia Proposal and Theodore Sizer's Horace's Compromise. The philosopher of education John McPeck has argued that critical thinking is a necessary condition of education. However I believe that we have yet to agree upon a clear idea of what critical thinking is and whether it can provide the focus for a curriculum. In this paper, I shall try to clarify the issue by concentrating upon a debate recently at the fore of the philosophical and educational literature on critical thinking: the claim that critical thinking consists of a set of discrete skills which can be taught separately versus the claim that critical thinking is "field dependent" and thus part of learning a discipline. Starting with a brief history of the concept of critical thinking, I shall claim that these contentions are deficient for not fully taking into account what I shall propose as a pedagogically sound conception of the discipline of philosophy in practice in the schools today. I shall further my claim through an examination of pre-college philosophy, since it explicitly approaches the task of critical thinking via a thorough grounding in philosophy. I shall critically consider the program of Matthew Lipman, who

proposes a curricular revision based upon philosophical practice, to see if indeed such practice offers more than the approach of critical thinking. I hope to show that such practice incorporates critical thinking as a necessary though not sufficient condition of philosophical thinking.

First, let us get an overall view of the current interest in reasoning skills as part of proposed educational reforms by examining the recent popular works of Mortimer Adler and Theodore Sizer. Adler's program (1982), written with the support of a group of distinguished educators, attempts to continue a reform of public schooling that was initiated with the founding of our country, and one that Adler contends must continue if we are to have a true democracy. The "Paideia proposal" calls for the same quality of schooling for all, since the group's assumption is that each child is educable and not merely trainable. Central to the book is a discussion of three types of learning and corresponding manners of instruction. Adler maintains that teaching has mostly concentrated on imparting knowledge through didactic instruction. What must also be done is development of intellectual skills through "coaching" (see Sizer, 1984) and, of great importance, reinforcement of these two methods through the third method of socratic questioning, leading to an enlarged understanding of ideas and values. The third method is of crucial importance, according to Adler, since active participation in learning is essential.

Adler assumes that such active engagement is too often rare in our schools. Sizer shares this belief, and has conducted an extensive study of high schools (1984). Sizer stresses the important role of the teacher in making subjects come alive and for active questioning to come forth. For Sizer, most children seem to believe that knowledge is just handed to them, or done to them.

Sizer found a poor level of skills, such as reading and computation, in addition to a low level of knowledge in most subjects. What was more disturbing was the alarmingly low level of reasoning skills. The skills of analysis and synthesis, exemplified by Adler's third level of instruction and learning, were indeed weak. These findings have been corroborated by other studies. The Educational Testing Service, using the New Jersey Test of Reasoning Skills, has shown that reasoning capacities level off at around the fifth-grade level; thus, most high school and college students reason with the equipment of eleven year olds (Lipman, 1980).

Adler and Sizer both call for an emphasis upon the active evaluation of information, in addition to many other reforms. Yet such evaluation is part of what would be agreed upon as "critical thinking" (hereafter CT) and has been an educational ideal for a long time. I shall narrow my scope to consider what has been called by Harvey Siegel and others as the CT movement, which has occurred in the last twenty five years or so. This brief history will allow us to see the educational relevance of

CT, and how indeed it became an educational ideal that forms the core of our present debate.

In many ways, CT got its start as a current educational concern with Robert Ennis's article, "A Concept of Critical Thinking" (1962). Ennis is important historical background for one particular reason: he equates CT with linguistic competence, calling the ability the "correct assessing of statements." We shall later see how Ennis's definition fits in well with the informal logic movement. While Ennis also proposes that his definition has pragmatic consequences for educational research (p. 83), which indeed has occurred, particularly with Ennis's own Cornell Critical Thinking Tests, the definition has had great impact upon the academic consideration of CT. This may partly be due to the fact that the definition lends itself well to the dominant school of thought in recent American philosophy, namely analytic linguistic philosophy.

Though Ennis's article occurred in an educational journal, and he states that education most often uses psychology as its research paradigm, his clarification and simplification of the concept of CT, and its demarcation from other forms of thinking, is typical of analytic linguistic philosophy, at least as practiced in the journals twenty five years ago. Yet this definition immediately raises for Ennis (p. 109) a practical educational consideration central to this paper, namely, should critical thinking be integrated into existing courses or presented as a separate course?

If we move on to look at current courses offered in philosophy departments, we find that there is a great deal of interest in teaching reasoning. The movement known as "informal logic" adopts Ennis's themes by concentrating upon language analysis. Philosophers working in this burgeoning area (Scriven, 1976; Fogelin, 1978) usually assume that critical thinking skills are primarily the skills of argument analysis. Skills such as identifying the premises and conclusion of an argument, searching for hidden assumptions, and spotting fallacious reasoning, are usually taught in a separate course, entitled "Reasoning," "Informal Logic," or "Critical Thinking." Such courses oftentimes promise that a student will be taught analytical skills that can be used in any discipline. Yet these courses are largely separate from the traditional disciplines. Critical thinking is rarely if ever taught in tandem with a course in literature or history, but as a course unto itself. Such courses often do not even tackle traditional problems in the history of philosophy, or the foundations of any other discipline, but concentrate upon the analysis of "real life" arguments culled from the media.

The view that CT is argument analysis has come under attack by the philosopher of education John McPeck. McPeck labels this view "the philosopher's fallacy" (McPeck, 1981, p. 8), namely, regarding a necessary condition for CT (concern for logic) as a sufficient condition for CT. His book, Critical Thinking and Education (1981), is central to the debate I shall closely examine in order to further my argument. He finds that the term

CT is too often used by Ennis and others without justification. McPeck argues that CT is not one set of separate skills identified by philosophers that can be applied uniformly across the disciplines, but that CT is characterized by what McPeck calls "reflective scepticism," namely, holding in Cartesian abeyance a particular claim until it can be justified by reason and evidence. Furthermore, to use Toulmin's (1958) phrase, CT is "field dependent." McPeck argues that skills brought to bear upon a historical problem are largely different from those skills used in chemical experiments or literary criticism. He claims that each field of study has its own peculiar subject matter and corresponding epistemology. Therefore, thought about such matters is governed by knowledge claims in that area; hence such thought is always field dependent. McPeck argues that there is no such discrete subject as CT. The CT of a historian would be demonstrated by the historian's use of evidence to prove a thesis. However, this type of reasoning would not transfer in any meaningful way beyond the obvious rules of elementary logic to the analysis of a chemical experiment.

McPeck's view has important educational consequences. While the informal logician may argue that reasoning can be improved through practice in argument analysis, McPeck claims that reasoning can best be improved by thoroughly learning a discipline. He claims that the lack of reasoning skills in the schools is not due to inattention to argument analysis, but to a deficiency in general education (p. 22). This illustrates

McPeck's central and powerful contention that education entails critical thinking. Thus the thorough learning of literature, science, or history is a sufficient condition for critical thinking in those disciplines, since any specialist's work must also obey the simple logical rules and maxims which largely comprise standard introductory logic and CT texts in order to be understood.

McPeck's work has shaken many of the pieties of philosophers and others who have advocated CT since the appearance of Ennis's article. Whether he is right in his various claims is beyond the scope of this paper. I shall further my own discussion by concentrating upon the examination of McPeck offered recently by Harvey Siegel (1985). Siegel remains convinced that critical thinking is not strictly field dependent, but can be taught as a separate discipline such as informal logic. Siegel reasons that there are obviously generalizable CT skills, such as identifying assumptions, that are not field dependent, but can be applied across the disciplines. However, Siegel misses McPeck's point. McPeck claims that the rules propounded by CT-as-informal logic enthusiasts, such as "Don't contradict yourself" (McPeck, p. 52) are painfully obvious to any specialist worth his or her salt. I hope that we all agree that the banalities of introductory logic <u>can</u> be taught; what McPeck is arguing is that they are trivial since they have been abstracted from their disciplinary context in order to be applicable to <u>all</u> disciplines.

As one who has taught introductory logic to students from grade school to adult evening courses, what I shall call the "paradox of the teaching of logic" is all too apparent: if students already reason coherently, then they do not need cookbook introductory courses in logic, and if they are averse to the practice of coherent reasoning, then no amount of maxim-propounding and cookbook practice of the "rules of inference" will make them "logical." Practice in argument via class discussion about a matter of concern to students, perhaps something of their own initiation (Lipman, 1980) and writing in several drafts (here word processors are a god-send to the teacher of thinking skills!) with teacher comments on the successive drafts, would foster thinking much better than cookbook practice in introductory logic. These practices are pedagogical consequences of McPeck's emphasis upon education, and his claim that education entails CT. Consequently, while I grant Siegel that a separate CT course is possible, he has not made the argument that such a course is worthwhile.

We have seen where certain thinkers have taken us with the concept of CT. I shall argue that CT must be grounded in what I shall propose as philosophical thinking. I intend to show how such philosophical thinking is not merely "argument analysis," or "reflective scepticism," but that it forms the starting point for theoretical and empirical inquiry, as elegantly described for us by Descartes in his Meditations, and develops a dialectically related form and content of its own, so that an all-encompassing

discipline, namely philosophy, emerges, as shown by Plato in his Meno and other Socratic dialogues.

Descartes distinguishes between two philosophical methods, analysis and synthesis. The synthetic method propounded in the Regulae presents, as does Spinoza's Ethics, the product of philosophical thought in a completed textbook fashion. In the Meditations Descartes uses the 'analytic' method of discovery, which he contends is properly philosophical, to construct a world out of the building blocks of reason. He discovers the essential properties of things around him, such as the ball of wax, and the innate "clear and distinct ideas" intuited by pure reason, such as the idea of God. These insights are achieved by thought alone, or what Plato calls "the mind's silent dialogue with itself." Plato also shows the model of philosophy as discovery, albeit this time as public, dialogical inquiry between several men, in the Meno. Socrates carefully leads the slave boy to the recognition of certain rules of inference that particularly pertain to geometric demonstration. The Socratic dialogues exemplify an open mode of discussion in which the interlocutors are asked to provide reasons for their assertions. The group forms a community of inquiry in which content (the ideas under discussion) is inextricably bound to form (the discussion itself).

This all may sound removed from educational practice, especially the "classroom clamor" and the concerns of teachers about students' interest in schooling. However, I believe that

Descartes and Socrates are not irrelevant to these concerns. I shall contend that attempts made to introduce philosophical thinking into our elementary schools provide the impetus for inquiry and the focus for all of the disciplines, as philosophical reason did for Descartes, in addition to dealing with the pedagogic problems of improving general reasoning ability. I believe that philosophy, not merely CT, is the discipline that should form the armature of a cumulative though seamless kindergarten through college curriculum, and is the missing link in present teaching and humanities curricula.

Thus, mindful as I am of McPeck's criticism of the 'multicompetent' arrogance of philosophy (see McPeck, p. 81), I want to claim that the key elements of my proposed pedagogically relevant conception of philosophy, namely dialogical inquiry and discovery fuelled by wonder, are precisely what is missing in much of present instruction. Philosophy can be <u>in</u> education. We have only to look to the writings and curricular materials of Matthew Lipman, Gareth Matthews, and others associated with introducing philosophy into the schools. Lipman's <u>Harry Stottlemeier's Discovery</u> (1977) presents the paradigm of a "community of inquiry" such as found in Plato's Socratic dialogues. Such a community is perhaps the central concept of Lipman's Philosophy for Children program. While Harry Stottlemeier and others do discover and use basic logical rules, characters in the novel also puzzle over and discuss many other things. Many styles of thought are presented and ideally the

reader can see the value in thinking in a variety of ways. The free expression of different ways of thought provides the content for later reflection (cf. Wagner, 1982).

As Lipman has noted (Chance, 1986), the core of the program is this dialectic of discussion and reflection. Here we are given a paradigm of how, pace McPeck, education is intimately related to philosophy and not merely to CT. Each discipline does begin in wonder, in asking the persistent child-like question "Why?" about the world around us (natural and physical sciences), or people and their actions and relations (social sciences), or their thoughts and aspirations (humanities). Thus philosophy, taken in its original Aristotlean sense and in my proposed pedagogical definition, encompasses all the disciplines. It is only with the growth of knowledge in the last two millenia that we have tended to abandon this insight.

How philosophy can form the armature of a curriculum recalls the reforms proposed by Sizer and Adler. Adler's third level of instruction, in emphasizing socratic questioning, should lead to an enlarged understanding of ideas and values. I hope to have shown that we indeed can go beyond both the penchant for argument analysis favored by the informal logicians and also McPeck's tireless insistence upon the field dependence of argumentation. I grant that McPeck is correct to reiterate Toulmin's insight that every discipline has specific "inference warrants" and its own logic, while elementary generic logical rules, though important for communication to even exist, are often trivial and

obvious. Yet McPeck does not show any way whereby we may foster learning in the disciplines, beyond calling for more education-in other words, more competence in the disciplines.

Should philosophy form the armature of a curriculum? Dialogical inquiry born of wonder is readily apparent in children. But is it "really" philosophy? Children constantly ask the most basic philosophical questions (Matthews, 1980 and 1984). They wrestle with metaphysical issues: "Tim (about six years) while busily engaged in licking a pot, asked, 'Papa, how can we be sure that everything is not a dream?'" (Matthews, 1980, p. 1); and they are particularly concerned with ethics: "Ian (six years) found to his chagrin that the three children of his parents' friends monopolized the television; they kept him from watching his favorite program. 'Mother,' he asked in frustration, 'why is it better for three people to be selfish than for one?'" (p. 28). These examples show that children often do go to the heart of some of our most basic philosophical concerns, and are willing to engage in discussion, however unsophisticated by university standards, about these topics.

Yet, one may argue that there are many things children like to do, such as throw paper airplanes, that they should not be unduly encouraged to do as a matter of curricular practice. Should philosophy become part of an already crowded school day? Research has shown (Lipman, 1980) that children have made dramatic gains in basic academic skill areas by doing philosophy. My own work as a consultant (Rud, 1985) provides evidence that

inquiry and discussion about educational values, practices, and goals (in other words, philosophical discussion of education) throughout a school by members of the faculty, staff, and students, offers a normative foundation for what is often a fragmented curriculum. Thus philosophy would provide the bond for all of the traditional disciplines, which could be approached philosophically; that is, in open dialogical inquiry.

Ivan Soll (1972), in writing about Hegel as a philosopher of education, claims that Hegel's educational ideal was the knowledge of everything. While this certainly was overly ambitious even for the encyclopedic Hegel, it is clearly a pipe-dream today. But as an ideal, it is not trivial, and is crucial to the understanding of his philosophy. Hegel believed that everything is pertinent to philosophy because reason permeates everything. Philosophy has always been in the classroom; until recently it was covered over by an often deadening pedagogy. It is up to the teacher to be attuned to the natural and innocent philosophizing of children in an effort to reanimate and unify the "standard curriculum." Such a revitalization will occur if philosophical thinking, and not merely CT, is taken as the armature of a curriculum.

Though we have come a long way in recognizing the importance of CT in education, we still have a way to go, and that way is "back" to the discipline of philosophy, which has as its history the development of thought on matters of importance. CT is but a necessary though not sufficient component of philosophical

thinking. I have attempted to characterize philosophical thinking in the schools as the dialectic of reflection and discussion initiated in and fostered by natural and innocent wonder. Such thought is more than the sterile analysis and assessment of arguments, or even more than the "reflective scepticism" advocated by McPeck, since philosophy inherently reorganizes the "standard curriculum" to allow for the preeminence of foundational questions that may go to the heart of a particular discipline and its relations to all other fields of thought. But are not these precisely the type of questions asked in innocence and imprecision by many children, even before they enter school and then still again when they begin to learn the "disciplines?"

D.C. Phillips (1983) boldly and amusingly points out the waning fortunes of philosophy of education. Siegel (1980) calls for a reversal of the parasitic, poor man's relationship that philosophy of education has traditionally had upon other branches of philosophy. Though I cannot claim that I have shown that the traditional branches of philosophy are inherently dependent upon philosophy of education, though I suspect they are, I follow Siegel's call and have claimed that philosophy is inherently <u>in</u> education. My own research in the philosophy of education, of which this paper is but a start and a stab, is leading to an attempt to show that education ought to be restructured so that philosophy, the dialogical inquiry born of wonder, reassumes its

proper, though forgotten, role as the armature of a curriculum and the normative foundation of education.

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I would like to thank Paul A. Wagner, my wife Rita, and my father for helpful suggestions and encouragement on this paper. Its content and any errors are, of course, my responsibility.

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